

A

TRANSFORMATIONS

Name _____

Date _____

Block _____

$$y = 4x^2$$

$$y = \frac{1}{2}x^3$$

$$y = 3\sin x$$

$$y = 0.8 \ln x$$

$$y = -2\sqrt{x}$$

$$y = -\frac{1}{3}x$$

$$y = -5e^x$$

$$y = -0.2|x|$$

$$y = \frac{6}{x}$$

B

$$y = \sqrt{5x}$$

$$y = e^{0.7x}$$

$$y = 13x + 1$$

$$y = \ln(0.2x)$$

$$y = (-2x)^3$$

$$y = \sin(4x)$$

$$y = \frac{1}{6x}$$

$$y = \sqrt{-x}$$

$$y = \left(-\frac{1}{2}x\right)^2$$

C

$$y = (x+3)^2$$

$$y = \sqrt{x+4}$$

$$y = e^{x-1}$$

$$y = |x-2|$$

$$y = (x-6)^3$$

$$y = \sin(x + \pi/2)$$

$$y = \frac{1}{x+1}$$

$$y = \ln(x-7)$$

$$y = (x-4)^2$$

D

$$y = x + 6$$

$$y = \sqrt{x} - 4$$

$$y = \sin x + 5$$

$$y = x^2 - 3$$

$$y = \frac{1}{x} + 4$$

$$y = \ln x - 7$$

$$y = x^3 + 2$$

$$y = |x| - 10$$

$$y = e^x + 1$$

MIXED PRACTICE

For each, give the non-trivial values of a, b, c and/or d
AND describe how each transforms the graph.

1) $y = 4(x-1)^2 + 3$

2) $y = 0.4 \sin(2x)$

3) $f(x) = e^{3(x-1)}$

4) $f(x) = \ln(x+2) - 4$

5) $g(x) = \frac{3}{x-4} + 1$

6) $h(x) = -5\sqrt{x} + 6$

7) $y = -\frac{1}{3}(x+6)^3$

8) $f(x) = -2|x-4|$

9) $g(x) = \frac{1}{4}x + 2$

10) $h(x) = -x - 6$

11) $v(x) = \sqrt{-x} + 4$

12) $y = |3x| + 1$

13) $y = \frac{1}{0.4x} - 3$

14) $h(x) = -2(x+4)^2 + 3$

15) $y = 2e^{-x} - 6$

16) $f(x) = 5 \sin\left(\frac{1}{2}(x-90)\right) - 3$